IMPROVED MATH CRITICAL THINKING ABILITYAND INDEPENDENCE OF VOCATIONAL SCHOOL STUDENT LEARNING THROUGHMEANS-ENDS ANALYSIS LEARNING MODEL

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ABSTRACT

The value of mathematics is relatively low, one of the causes is the low mathematical critical thinking of students when learning activities. The alternatives carried out in this study aim to determine the achievement of an increase in mathematical critical thinking skills, and increase the learning independence of students who obtain learning means-ends analysis. This research was conducted at the Vocational High School Bina Taruna with sample XI students of Computer Network Engineering (TKJ) namely, class XI TKJ 2 and class XI TKJ 3. Class XI TKJ 2 obtained learning means-ends analysis and class XI TKJ 3 obtained conventional learning. The instruments in this study were in the form of tests of mathematical critical thinking skills and a questionnaire of learning independence, were tested and met the requirements to be used as research instruments. The analysis of this study uses the IBM SPSS 25.0 Application Program for Windows. Based on the results of the analysis of research data shows that: (1) The achievement of increasing students' mathematical critical thinking abilities that obtain means-ends analysis learning model is higher than students who obtain conventional learning models. (2) The achievement of students' learning independence through those who obtain a means-ends analysis learning model is higher than students who obtain a conventional learning model.

Keywords:
Critical Mathematical Thinking, Learning Independence, and Means-Ends Analysis.